Aligning School Finance with Student Performance

Allan Odden,
University of Wisconsin-Madison, CPRE

Prepared for the WA House K-12 Finance Workgroup

June 7, 2004

Resource Materials

- Odden & Picus, School Finance: A Policy Perspective, 3e, McGraw Hill, 2004
- Odden & Archibald, Reallocating Resources, Corwin Press, 2001
- Goertz & Odden, School-Based Financing, Corwin Press, 1999
- Odden & Busch, Financing School for High Performance, Jossey Bass, 1998
- Odden & Kelley, Paying Teachers for What They Know and Do, Corwin Press, 2002
- CPRE case studies on our CPRE site:
  - www.wcer.wisc.edu/cpre
- Ongoing research on school finance adequacy (AR, AZ, KY), school cost structures, the costs of effective professional development, and new forms of teacher compensation

Evolution of School Finance

- Equity (most of 20th century)
  - Variation in per-pupil expenditures
  - Uneven distribution of property tax base
- Productivity (1990s)
  - Linkage between level and use of funds and student achievement
- Adequacy (now and in the future)
  - Will improve equity too but requires more effective use of resources and adequate funding so schools can teach students to state performance standards

Key Questions re a State's School Finance System

- How equitable is it?
  - How equal is spending per pupil?
  - To what degree are spending differences linked to property wealth differences?
  - Washington is quite good on these issues.
- How adequate is it? (The alignment issue.)
  - What does it take to address adequacy: more effective uses of education dollars, restructuring and reallocation, performance pay for teachers, and adequate funding levels?
  - What does the state "get" for this shift – hopefully more effective use of all resources and higher levels of student achievement.
- What is the political viability of any proposed changes?

Shift to Adequacy"Squares" with WA's Performance Goals

- Message of Standards-Based Education Reform Goal
  - Teach students to high standards
    - » Requires a doubling or tripling of results!
  - To accomplish this goal, need to focus on instructional, staffing, management and other strategies that combined will boost student performance
  - Begin to do this with extant money, so ….
    - » Imperative first to use current money better
  - Adequacy sets the stage for:
    - » Determining how to use all dollars more effectively
    - » Identifying evidence based practices that should lead to restructuring and resource reallocation
    - » Figuring out how performance pay for teachers could accelerate this agenda
    - » Asking if there is an adequate level of funding

How Finance Can Support Performance

- Provide adequacy and improve equity
- Repositions school finance from technical arena of formulas to supportive center of the education system -- NRC panel report
- What "works," how to get this into districts and schools, and yes, "how much does it cost?"
- What is needed to teach all students to performance levels, including both extant and any new resources, which often is proposed but not always is needed: New Jersey and Connecticut

Key Alignment and Resource Use Strategies

- State provides the broad school finance context for districts and schools to meet state student performance goals – probably through a foundation type of formula
- Districts provide schools an adequate amount via needs-based funding formula, support restructuring and reallocation
- Schools reallocate dollars to more effective, school-wide, evidence-based educational strategies
- System reinforces these school finance shifts with incentives and strategies to improve instructional quality so teachers can successfully teach students to standards – including new forms of compensation

How Most States Approach Adequacy

- First by identifying the most appropriate finance structure – a foundation program, which is the structure in Washington
- Second, by "rushing" to conduct an "adequacy" study, which too often just produces a higher foundation expenditure number

A Better Approach

- Ask hard questions about various evidence-based strategies that produce improvements in student learning – what works
- Have districts and schools ask these same questions ➔ resource reallocation phase
  - Sunset uses of resources without evidence on effectiveness
  - Shift those resources to evidence based practices
  - Conduct a professional development fiscal audit
- Rethink teacher compensation structures

At some point, the state will ….

- Need to conduct some version of an adequacy study to focus on evidence-based practices
  - Schools and districts need to do the same thing
- Be careful how this is done

School Finance Adequacy and Teacher Compensation

- Rapidly emerging connection
- Accomplishing the goals of standards-based education reform requires a quality teacher in every classroom
- One major aspect of providing these quality individuals is the level and structure of teacher pay

Compensation Link to State School Finance Structure

- Some states want to link a two-tiered teacher licensure system to broader knowledge and skills and to an altered salary schedule
- Some states use a teacher salary schedule to allocate funds (ID, WA)
- Adequacy school finance systems calculate numbers of teachers & usually use a steps and lanes salary schedule to “price” each teacher

- Problem of single salary schedule for all three strategic linkages:
  - Neither years of experience nor education degrees are strongly linked to teacher effectiveness
  - Provides no clear career path for teachers; defines no stages of professional growth; no “fast track” mechanism
  - Single salary lacks policymaker confidence as a mechanism for higher levels of teacher pay –don’t get anything
- So look to some performance pay structures

New Arkansas Salary Proposal

Skill Level	Step Within Level	Salary	Percent Step	Dollar Step	SREB	
Entry (Probationary)	1	$29,000			$29,034	Entry SREB
	2	$29,580	2.0%			
	3	$30,172	2.0%			
Emerging Career	1	$33,038	9.5%			
	2	$33,699	2.0%			
	3	$34,373	2.0%			
Career	1	$37,638	9.5%			
	2	$38,391	2.0%			
	2	$39,159	2.0%			
	4	$39,942	2.0%			
Master	1	$43,736	9.5%		$40,509	Avg SREB
	2	$44,611	2.0%			
	3	$45,503	2.0%		$42,367	Q3 SREB
	4	$46,413	2.0%			
Arkansas Fellow	1	$50,823	9.5%		$46,310	90th Pct SREB

Percent Increase for Skill Level	9.5%
Percent Increase for Steps	2.0%
Adder for Subject Area Shortage	4.6%
Adjustment for Geographical Shortage	5.0%
Adder for MA and MA30	5.0%

UNIVERSITY OF WISCONSIN MADISON

CPRE

Key Characteristics of Arkansas Proposal

- Tied to two-tier licensure
  - Emerging career is professional licensure via PRAXIS III
  - Career, Master and Fellow will be linked to more rigorous performance assessments
- Major pay increases are based on teacher knowledge and skills or instructional performance: 9.5 %
- Step increases within categories are few in number and provide only 2% hikes
- Adders for subject area shortages (math, science) and geography (inner city and rural sparsity) and degrees: MA and MA+ 30 only

Overall Suggestion

- Across the country, the “old” funding arguments have little play – keep up with inflation, tweak the formula, etc.
- Adequacy raises a series of new issues and changes the nature of the debate
- Performance pay proposals do the same thing
- Both could shift WA school finance deliberations to a new arena, which includes many issues – early childhood, student achievement, school finance structure, needs-based funding formula, uses of resources, and even responses to NCLB – by shifting to an adequacy approach

Four Approaches to Defining Adequacy

- Successful district
- Cost function
- Professional judgment
- Evidence-based

States Have Taken Many Approaches

- Successful district approach – expenditures where students meet performance targets (IL, OH, KS)
- Economic cost function – research NY, WI, TX, IL, NB
- Professional judgment on quality inputs – WY, MD, KY, SC, NY, MS, NB, KS, MT – 2nd generation approaches needed
- Evidence-based" approach – NJ, KY, AR, AZ

Adequacy Across the US

- Use in New Jersey in 1998 found that money was adequate and had to be used more effectively
- Adequacy study in Maryland lead to that state's SFR in 2003, hiking aid by $1-$2 billion
- Studies recently completed in North Dakota, Montana, Kansas, Nebraska, New York, Kentucky (3 studies), Arkansas, and Illinois
- Ongoing adequacy studies in Arizona, New Jersey, South Carolina and Texas, and probably other states
- Special legislative session in Arkansas and appointment of court master

The particular approach matters

- Successful district leads to a low cost figure, but not relevant to many districts
- Cost function – economists love it – leads to an average figure for the average district, but 2-3 times that for large districts, like Seattle, cause of the weak link between current spending and performance
- Professional judgment – very high figure and many non evidence based proposals
- Evidence-based – the most modest approach, each element back by evidence on effectiveness, usually paired with performance pay for teachers as well, which none of the other approaches have proposed

Successful District

- Use expenditure and achievement data to identify “successful” districts
- Eliminate “unusual” districts from analysis
- Find districts that achieve the desired performance level
- Determine average expenditures per pupil
  - Student characteristic adjustments
  - District characteristic adjustments
  - Cost adjustments
- This is the “adequate” funding level

Successful District

- Advantages:
  - Links expenditures per pupil and desired student outcomes
  - Relatively simple and straightforward
  - Draws from actual state districts
- Disadvantages:
  - Too many “atypical” districts excluded from analysis
  - Successful districts are usually relatively homogeneous
  - Results are difficult to “adjust” for larger (>2500 students) urban and poorer rural areas
  - Results can be manipulated
- Does not identify the educational delivery system

Cost Function

- Economic approach using regression analysis to identify the cost to produce an outcome
- Expenditures per pupil are the dependent variable
- Independent variables
  - Desired performance level
  - Characteristics of students
  - Characteristics of districts
- Per pupil expenditure varies with desired performance level
- Results are an average expenditure level and an overall cost adjustment

Cost Function

- Advantages:
  - Clearly links expenditures to desired results
  - Accounts for most key factors that impact costs
- Disadvantages:
  - Very complex
  - Not used to make policy in any state today
  - Assumes existing resources are not reallocated
  - Does not offer any insights into strategies for the delivery of educational services

What An Adequacy Study Needs to Do

- Identify educational delivery strategies that can produce desired results
- Determine the resources needed
  - Detailed specifications of resources needed to support the delivery strategies
  - Development of prototype designs for elementary, middle and high schools
  - Designs must be supported by research and evidence-based best practices that produce improvements in student learning
- This requires much more detailed specifications and costing than are typically found in general education reform recommendations

Professional Judgment

- Education professionals make judgments on what is needed at the school level to teach students to proficiency standards
- Panels of teachers and administrators identify the resource needs for prototypical elementary, middle and high schools
- State panels review and revise the proposals of various local/regional panels
- State panels also create prototypical district design

Professional Judgment

- Advantages:
  - Draws from the expertise of educational professionals
  - Proposals are tailored to the context of each state
- Disadvantages:
  - No clear link to student learning gains
  - Tendency to "game" the system
  - Many panel members are not able to identify "evidence" or "research" that supports their proposals

Evidence-Based Model

- Draws from research and evidence-based best practices
- Identifies educational delivery strategies are linked to student learning gains
- Attempts to “back” each resource recommendation with reference to research and/or best practices
- Draws from the best of current research and practice
- Can also draw from a synthesis of the best professional judgment panels
- Estimates the cost of the resources identified
- “Squares” with the evidence-based practice required by No Child Left Behind

Evidence-Based Model

- Advantages:
  - Produces a detailed staffing for prototype schools
  - Draws from previous research and adequacy studies already conducted around the country
  - Each element has an "evidence" rationale
  - Identifies strategies based on research evidence.
  - Robust and parsimonious – a "Ford" not a "Cadillac"
  - To date, estimated additional costs are lower than other approaches
- Disadvantages:
  - Not all school elements have a research base, or a strong research base
  - Should not "stand alone"
    - » A review panel of educational professionals should review the model before costs are estimated

Outcome of Professional Judgment and Evidence-Based Models

- Prototypical Schools Designs
  - Elementary
  - Middle or Intermediate
  - High School
- Estimated cost per pupil of each prototype
- Estimate of the student, district and price adjustments needed

The Adequacy Approach in Wisconsin Evidence-Based - a

1 Principal ~=1.5 Teachers

2.5 Instructional Facilitators

29 Teachers, 20 Teachers, 20 Teachers in El, MS and HS

6, 4, 6.7 planning and prep teachers

3 Special Education

1 Tutor

1, 2, and 3 Pupil Support

Low Income: 1 tutoring and 1 pupil support for each 125 low income, plus 40% more for ELL

0, 1, 1 Librarian

10 sub days per teacher ~=$100/p

$250/p Instructional materials

$250/p Technology

$50, $100, $150/p Extra Duty

$50/p for pd training

$50/p for supervisory aides

1.5 Secretary ~=1.0 Teacher

Plus Carry forward of $2000/p

~@$60k/teacher ➔

$8250 El, $7200 MS, $7650 HS

➔ $7850/pupil all levels, includes $2000/pupil non-school expenses

The Adequacy Approach in Wisconsin Evidence-Based - b

- So $7850 per pupil

PLUS

- Low Income: 1 tutor and 1 pupil support for each 125 Free and reduced lunch kids, at $60k per position, ~= $1000/low income kid, which is a 0.13 wt.
- 40% more for ELL, or $400/ELL kid, or a 0.052 wt.
- Disabled:
  - Full state funding of all severe disabilities
  - Or reduce base per pupil by 3 FTEs ($360/p) and weight overall disability county at 0.9, which changes Lo income weight to 0.133 and ELL weight to 0.0533 because the base expenditure level drops.

School Finance Implications

- Foundation
  - 7850 or $7500 per pupil depending on disabilities approach
- Need Adjustment
  - 0.13 Low income and 0.052 ELL with Census approach to disabilities
  - 0.9 all disabilities, 0.133 low income and 0.0533 ELL
- Price Adjustment

Impact in Wisconsin

- Would imply a very modest, if any, increase in funding, and give the state a “handle” on costs
- Would imply substantial school restructuring and resource reallocation and state, district and school identification of evidence-based practices
- Could be reinforced by performance pay structures for teachers
- Would provide the programmatic and fiscal base for a strong accountability system for schools, teachers and students